8. Password

Keith is sending passwords to sections of his website to various friends and does not want them to be intercepted by any hackers. Therefore, he has decided to send them in "code". He will send a string of letters containing the password that his friend will use to access his website as well as the length of the password. Unfortunately, the password is embedded in the string more than once. The desired password is the string of the given length that appears in the input string the greatest number of times. You are to write a program that will extract the password from the given string.

Note: The string will contain exactly one unique password.

Input
The first line of input will contain a single integer n that indicates the number of passwords to be sent. Each of the following n lines will contain a single string of lower case alphabetic characters followed by a space and an integer greater than 2 which denotes the length of the password to be found.

Output
For each string input, you will print the embedded password.

Example Input File
```
2
abccababccabc 3
treatreataaeesaaeesatreatreaterarederaeesarafea 5
```

Example Output to Screen
```
abc
treat
```